

REMARKS

Response to §112 Claim Rejections

In paragraphs 6 through 8 on pages 3 and 4 of the Office Action, the Patent Office rejected claims 9 and 31 under 35 USC §112 as indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Specifically, the Patent Office objects to the use of the functional word “whereby” in both claims 9 and 31. The Patent Office bases its rejection upon an older CCPA ruling in *In re Mason*, 244 F.2d 733, 144 USPQ 127 (CCPA 1957). However, the Applicant respectfully submits that this rejection is improper and requests that this rejection be reconsidered and withdrawn.

The Applicant submits that ample precedent exists to establish that functional limitations, such as “whereby”, are appropriate in claims and should be afforded patentable weight by the Patent Office. Most notably, the CCPA specifically approved of this type of claim language in *In re Swinehart*, in which the CCPA held:

We take the characterization “functional”, as used by the Patent Office and argued by the parties, to indicate nothing more than the fact that an attempt is being made to define something (in this case, a composition) by what it does rather than by what it is (as evidenced by specific structure or material, for example). In our view, there is nothing intrinsically wrong with the use of such a technique in drafting patent claims. Indeed we have even recognized in the past the practical necessity for the use of functional language. (*In re Swinehart*, 169 USPQ 226, 228 (C.C.P.A. 1971)) [Emphasis by court.]

In addition, the acceptability of functional claim language is also approved by the MPEP. In section 2173.05(g) of the MPEP we read:

A functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients). There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper. *In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971).

A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step.

The Applicant respectfully requests that this rejection of claims 9 and 31 under 35 USC §112 be reconsidered and withdrawn.

In a phone conversation between the Applicant's undersigned Agent and Examiner Matthew DeSanto on February 11, 2003, Mr. DeSanto acknowledged the inappropriateness of this rejection and advised the Applicant's Agent that this rejection of claims 9 and 31 under 35 USC §112 would be withdrawn.

Response to Rejections Pursuant to 35 USC §102 based upon Dunlap

In paragraphs 9 and 10 on page 4 of the Office Action, the Patent Office has rejected claims 9-13, 31, 48, 49, 54, 59-65, and 74-77 pursuant to 35 U.S.C. 102(b) as anticipated by U.S. Patent 5,941,852 of Dunlap, et al. [herein "Dunlap"]. However, the Applicant respectfully submits that this rejection is inappropriate and respectfully requests that the Patent Office reconsider this rejection in view of the following comments.

The Patent Office is reminded that MPEP § 2131 defines the conditions under which an anticipation rejection is appropriate:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*,

868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim...

With respect to the rejection of claim 9, the Applicant submits that Dunlap does not set forth every element set forth in claim 9 and therefore Dunlap does not anticipate the invention of claim 9. The Applicant believes that the Patent Office has misinterpreted Dunlap. As noted by the Patent Office, Dunlap does disclose a trocar assembly having a cannula (132) and an obturator (18); however, the similarities between the trocar of Dunlap and the trocar of claim 9 end there. The cannula (132) and obturator (18) of Dunlap include no bearing surfaces or any surfaces that could be interpreted as bearing surfaces as recited in claim 9 and as clearly described in the present specification.

The Patent Office identifies structures 27 on obturator 18 and surface 35 of cannula 132 of Dunlap as "bearing surfaces". However, close examination of Dunlap reveals that structure 27 is one of "two oppositely disposed pivotable buttons" as described, for example, at 7:36-38, and shown in the exploded view of Figure 9 and in the cross-sectional views shown in Figures 14 and 15 of Dunlap. At 7:53-57 of Dunlap, surface 35 is defined as one of two "recesses...in the exterior of the obturator handle 20 and cannula handle 134". Again, surface 35 does not comprise the claimed bearing surface. As most clearly shown in the cross-sectional views of Figures 14 and 15, button 27 in recess 35 (not identified in these figures) includes a "tabbed arm" 26 which engages "notch" 30 in cannula handle 34 (see 7:31-61 of Dunlap). Clearly, button 27 is pressed and released to engage or disengage notch 30 to attach or detach obturator handle 20 to cannula handle 134. Contrary to the claims made by the Patent Office, surfaces 27 and 35 are do not "bear" against each other, or against any other structure, as in the present invention. Again, the Applicant submits that Dunlap does not anticipate the invention recited in claim 9.

With respect the rejection of claims 10-13, 48, 49, and 59-65 pursuant to 35 U.S.C. 102(b), the Applicant submits that these rejections are inappropriate for the very

same reasons that the rejection of claim 9 (from which these claims depend) is inappropriate. The Applicant respectfully requests that these rejections also be reconsidered and withdrawn.

The Applicant also submits that certain features of the claims dependent upon claim 9 are missing from Dunlap. With respect to claim 10, contrary to the statements made by the Patent Office, obturator 18 of Dunlap does not, and cannot, rotate relative to cannula 132. As shown most clearly in the top view of Figure 13, the rectangular construction of the trocar and the required engagement of tabbed arms 26, 28 of obturator handle 20 into notches 30, 32 of cannula handle 134 prevent handle 20 from rotating relative to handle 134. Again, the Applicant submits that Dunlap does not anticipate the invention recited in claim 10. The Applicant respectfully requests that this rejection be reconsidered and withdrawn.

With respect to claim 48, no bearing surface or any surface that may be interpreted (that is, incorrectly) as a bearing surface in Dunlap is moveable relative to a cannula of Dunlap. Again, the Applicant submits that Dunlap does not anticipate the invention recited in claim 48. The Applicant respectfully requests that this rejection be reconsidered and withdrawn.

With respect to the rejection of claim 31, the Applicant submits that Dunlap does not set forth every element set forth in claim 31 and therefore Dunlap does not anticipate the invention of claim 31. Claim 31 is not anticipated by Dunlap for the very same reasons that Dunlap does not anticipate the invention of claim 9, discussed above. The Applicant respectfully requests that this rejection be reconsidered and withdrawn.

With respect to the rejection of claims 54, and 74-77 pursuant to 35 U.S.C. 102(b), the Applicant submits that these rejections are inappropriate for the very same reasons that the rejection of claim 31 (from which these claims depend) is

inappropriate. The Applicant respectfully requests that these rejections also be reconsidered and withdrawn.

The Applicant also submits that certain features of the claims dependent upon claim 31 are missing from Dunlap. For example, with respect to claim 54, Dunlap does not teach or suggest the use of a flexible seal to permit passage of the obturator with little or no fluid leakage. This feature further distinguishes the present invention from the cited art.

Response to Rejections Pursuant to 35 USC §102 based upon Smith

In paragraph 11 on page 6 of the Office Action, the Patent Office rejected claims 22-26 and 66-73 pursuant to 35 U.S.C. 102(b) as anticipated by U.S. Patent 5,807,338 of Smith, et al. [herein "Smith"]. However, the Applicant respectfully submits that this rejection is inappropriate and respectfully requests that the Patent Office reconsider this rejection in view of the following comments.

With respect to the rejection of claim 22, the Applicant submits that Smith does not set forth every element set forth in claim 22 and therefore Smith does not anticipate the invention of claim 22. The Applicant believes that the Patent Office has misinterpreted the disclosure of Smith; therefore, the Applicant believes that is instructive to briefly review Smith.

As noted by the Patent Office, Smith discloses a trocar assembly 100 having a cannula 112 and an obturator 110. According to the disclosure of Smith, as shown most clearly in Figure 2A, obturator 110 includes various mountings for knife blades 174 and safety shields 214. However, Smith discloses very little about the geometry of cannula 112. Figures 2A through 13 of Smith illustrate the construction and cross-section of obturator 110 only. None of these figures illustrates any details of the construction or geometry of cannula 112. Cannulas are only illustrated in Figures 1 and 2 (that is, cannula 112); in Figure 14 (that is, cannula 116); and in Figure 18 (that is,

cannula 316). However, none of these figures illustrates the geometry of the inside of cannulas 112, 116, or 316.

The Applicant submits that the only mention of the geometry of the inside diameter of a cannula appears at 3:21-26 and at 10:65-11:2 of Smith. Each of these passages states that the disclosed cannulas comprise a "substantially constant inner diameter". These passages also disclose that the inner diameters of the disclosed cannulas may have "a slightly larger inner diameter at its proximal end to accommodate the introduction of instrumentation". However, neither the illustrations of these cannula in Figures 1, 2, 14 and 18, nor their respective descriptions in anyway suggest that the inner diameters of the distal ends of the cannulas of Smith have any relationship whatsoever to the diameters of their respective obturators. In particular, there is no teaching or suggestion in Smith that the inner diameters of the distal ends of the cannulas of Smith are smaller than the maximum diameters of their respective obturators, as recited in claim 22.

According to one aspect of the present invention recited in claim 22, the first inside diameter of the cannula (that is, the end distal from the cannula head assembly 918) is smaller than the maximum diameter of the first end of the obturator. Since there is no teaching of the relationship of the inside diameters of the cannulas disclosed in Smith to the diameters of their respective obturators, the Applicant submits that Smith does not anticipate the invention recited in claim 22. Therefore, the Applicant respectfully requests that this rejection be reconsidered and withdrawn.

With respect the rejection of claims 23-26 and 66-73 pursuant to 35 U.S.C. 102(b), the Applicant submits that these rejections are inappropriate for the very same reasons that the rejection of claim 22 (from which these claims depend) is inappropriate. The Applicant respectfully requests that these rejections also be reconsidered and withdrawn.

The Applicant also submits that certain features of the claims dependent upon claim 22 are missing from Smith. For example, with respect to claim 23, Smith does not teach or suggest that the inside surface of the distal end of any of the cannulas disclosed by Smith be uniformly tapered from a second, larger inside diameter to the first inside diameter. With respect to claims 67 and 68, Smith does not teach or suggest that a head assembly of the cannula include at least one bearing surface, or that that bearing surface be inclined. These features further distinguish the present invention from the cited art.

Response to Rejections Pursuant to 35 USC §102 based upon Flom

In paragraph 12 on pages 5 and 6 of the Office Action, the Patent Office has also rejected claims 9, 10, 11, 13, 48, and 49 pursuant to 35 U.S.C. 102(b) as anticipated by U.S. Patent 5,971,960 of Flom, et al. [herein "Flom"]. However, the Applicant respectfully submits that this rejection is inappropriate and respectfully requests that the Patent Office reconsider this rejection in view of the following comments.

Again, the Applicant believes it will be helpful to review the teachings of the cited art. As recited in its abstract, Flom discloses a trocar having "arms" (12) that deflect outward to "lock the trocar to the patient". Close examination of Flom reveals that Flom discloses various mechanisms for "locking of the trocar to the patient". However, in all of these mechanisms the "locking" is effected by means of mechanisms incorporated into the cannula alone; in none of the mechanisms disclosed by Flom does the obturator play a roll. Only after the cannula mechanism engages the patient is the obturator inserted into the cannula.

For example, in Figures 1, 2, and 3, Flom discloses a trocar having an obturator 10, and a two-piece cannula including a tubular portion 14 and an inner member 36 (see Figure 3). The desired locking function is effected by the outward deflection of the arms 12 by means of the two-piece cannula alone. According to the disclosure of Flom,

the inner member 36 is axially deflected within the tubular portion 14 whereby inner member 36 impacts and pivotally deflects arms 12. The Applicant submits that in this aspect of Flom, and in all aspects of Flom, the obturator 10 does not play a roll in effecting the deflection of structures and engagement of the trocar to the patient. In fact, as noted at 3:9-11, Flom states that obturator 10 "is optional".

With respect to the rejection of claim 9, the Applicant submits that Flom does not set forth every element set forth in claim 9 and therefore Flom does not anticipate the invention of claim 9. For example, clearly, the relative deflection of structures in Flom takes place within the cannula of Flom; the obturator 10 of Flom is not deflected in any way relative to the cannula, as in the invention recited in claim 9. The Applicant submits that Flom does not anticipate the invention recited in claim 9. Therefore, the Applicant respectfully requests that this rejection be reconsidered and withdrawn.

Furthermore, there are no bearing surfaces on the obturator 10 of Flom that slidably engage a bearing surface on the cannula of Flom to effect deflection of the obturator relative to the cannula, as recited in claim 9. All the mechanisms disclosed in Flom that could be considered bearing surfaces are limited to the cannula only and have no relationship to the obturator 10. In Figures 4 and 5, the slot 32 and pin 34, which may be interpreted as providing bearing surfaces, are limited to separate structures on the cannula; neither slot 32 nor pin 34 reside on obturator 10 (which is not shown in Figures 4 and 5). In Figures 6-9, the lever mechanism 86, which may be interpreted as providing bearing surfaces, is again limited to separate structures on the cannula; lever mechanism 86 does not contact obturator 10 (which is not shown in Figure 6-9). In Figures 10-13, the mechanism for deflecting arms 94, which may be interpreted as providing bearing surfaces, is again limited to separate structures on the cannula; the mechanism shown in Figures 10-13 does not contact obturator 10 (which is not shown in Figure 10-13). In Figures 17 and 18, the slot 138 and pin 136, which may be interpreted as providing bearing surfaces, are limited to separate structures on the cannula; neither slot 138 nor pin 136 contact obturator 10 (which again is not shown in Figures 17 and 18). None of these structures of Flom anticipates the invention

recited in claim 9. Again, the Applicant respectfully requests that this rejection be reconsidered and withdrawn.

With respect the rejection of claims 10, 11, 13, 48, and 49 pursuant to 35 U.S.C. 102(b), the Applicant submits that these rejections are inappropriate for the very same reasons that the rejection of claim 9 (from which these claims depend) is inappropriate. The Applicant respectfully requests that these rejections also be reconsidered and withdrawn.

The Applicant also submits that certain features of the claims dependent upon claim 9 are missing from Flom. For example, with respect to claim 10, Flom does not teach or suggest that obturator 10 can or should rotate relative to the cannulas disclosed. This feature further distinguishes the present invention from the cited art.

The Applicant believes that presently pending claims are presented in allowable form. The Applicant respectfully requests that these claims be allowed and passed to issue.

If a telephone conference would be of assistance in advancing prosecution of the subject application, Applicant's undersigned Agent invites the Examiner to telephone him at the number provided.

Respectfully submitted,


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